

WEST Search History

DATE: Tuesday, April 29, 2003

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|-----------------|--------------|------------------|-----------------|
| side by side | | result set | |

DB=USPT; PLUR=YES; OP=ADJ

| | | | |
|-----|--------------------------|-----|-----|
| L13 | l11 and pigment | 28 | L13 |
| L12 | L11 and color [clm] | 2 | L12 |
| L11 | l10 and l4 | 271 | L11 |
| L10 | L9 and transgenic | 282 | L10 |
| L9 | L8 and grass | 349 | L9 |
| L8 | anthocyanin and stress | 643 | L8 |
| L7 | l4 and anthocyanin [clm] | 0 | L7 |
| L6 | L4 and color [clm] | 3 | L6 |
| L5 | L4 and color [clm] | 0 | L5 |
| L4 | L3 and (c1 or r) | 293 | L4 |
| L3 | L2 and transgenic | 293 | L3 |
| L2 | L1 and regulatory | 303 | L2 |
| L1 | anthocyanin and grass | 410 | L1 |

END OF SEARCH HISTORY

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FILE 'HOME' ENTERED AT 14:09:55 ON 29 APR 2003

FILE 'AGRICOLA' ENTERED AT 14:10:25 ON 29 APR 2003

FILE 'CAPLUS' ENTERED AT 14:10:25 ON 29 APR 2003
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FILE 'BIOSIS' ENTERED AT 14:10:25 ON 29 APR 2003
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=> s anthocyanin
L1 11477 ANTHOCYANIN

=> s 11 and regulat?

=> s 12 and transgenic
L3 145 L2 AND TRANSGENIC

=> s 13 and grass

=> d ti

L4 ANS

TI Shuffling of Agrobacterium and viral genes, plasmids and genomes for improved plant transformation

=> d ab

ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
Methods for evolving plant vectors with improved characteristics by recursive recombination are provided. Plant vectors that are RNA or DNA polynucleotides, conjugated-DNA polynucleotides, and plasmids are provided, as are vectors that are agrobacterium strains and plant viruses. Agrobacterium vectors that have evolved such desired properties as broad host range, increased transformation efficiency, insert precision, targeted insertion, and targeting of T-DNA sequences to the chloroplast are provided. Agrobacterium strains, which are amenable to transforming a broad range of host species using simple transformation techniques such as

vacuum infiltration or direct infection in planta, are provided. Plant virus vectors are provided that have evolved desired properties, including: rapid systemic spread, redn. of symptoms, and increased protein expression. Use of the evolved vectors to produce **transgenic** plants is provided. Methods and vectors for producing proteins in **transgenic** plants and for conferring pathogen-derived resistance are provided.

```
=> s l3 and color
L5          36 L3 AND COLOR

=> dup rem 15
PROCESSING COMPLETED FOR L5
L6          26 DUP REM L5 (10 DUPLICATES REMOVED)

=> s l3 and (color or pigment)
L7          52 L3 AND (COLOR OR PIGMENT)

=> dup rem 17
PROCESSING COMPLETED FOR L7
L8          35 DUP REM L7 (17 DUPLICATES REMOVED)

=> d 1-10 ti

L8  ANSWER 1 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI  cDNA sequence of Arabidopsis PAP1 and PAP2 gene and its uses of
    regulation of anthocyanin pigment synthesis in
    transgenic plants

L8  ANSWER 2 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI  Transgenic plant expressing Arabidopsis thaliana CSL1 gene for
    anthocyanin biosynthesis

L8  ANSWER 3 OF 35 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI  A WD-repeat-containing putative regulatory protein in
    anthocyanin biosynthesis in Perilla frutescens.

L8  ANSWER 4 OF 35 AGRICOLA Compiled and distributed by the National
    Agricultural Library of the Department of Agriculture of the United States
    of America. It contains copyrighted materials. All rights reserved.
    (2003)
TI  Modification of flower color and fragrance by antisense
    suppression of the flavanone 3-hydroxylase gene.

L8  ANSWER 5 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI  Plant flavonoid 5-aliphatic acyltransferase cDNAs and their uses for
    regulating flower color

L8  ANSWER 6 OF 35 AGRICOLA Compiled and distributed by the National
    Agricultural Library of the Department of Agriculture of the United States
    of America. It contains copyrighted materials. All rights reserved.
    (2003)                               DUPLICATE 1
TI  B-Bolivia, an allele of the maize b1 gene with variable expression,
    contains a high copy retrotransposon-related sequence immediately
    upstream.

L8  ANSWER 7 OF 35 CAPLUS COPYRIGHT 2003 ACS          DUPLICATE 2
TI  Expression analysis of maize C1 regulatory gene in
    transgenic tobacco plants (Nicotiana tabacum cv. Xanthi)

L8  ANSWER 8 OF 35 AGRICOLA Compiled and distributed by the National
    Agricultural Library of the Department of Agriculture of the United States
    of America. It contains copyrighted materials. All rights reserved.
```

(2003)

TI Genetic engineering of the **anthocyanin** biosynthetic pathway with flavonoid-3',5'-hydroxylase: specific switching of the pathway in petunia.

L8 ANSWER 9 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.

(2003)

TI The strawberry FaMYB1 transcription factor suppresses **anthocyanin** and flavonol accumulation in **transgenic** tobacco.

L8 ANSWER 10 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.

(2003)

TI Altered development of *Arabidopsis thaliana* carrying the *Agrobacterium tumefaciens* *ipt* gene is partially due to ethylene effects.

=> d so

L8 ANSWER 1 OF 35 CAPLUS COPYRIGHT 2003 ACS
SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

=> d pi

| | L8 | ANSWER 1 OF 35 | CAPLUS | COPYRIGHT 2003 ACS | |
|----|---------------|----------------|--|--------------------|-----------------|
| | | PATENT NO. | KIND | DATE | APPLICATION NO. |
| | ----- | ----- | ----- | ----- | ----- |
| PI | WO 2002000902 | | A2 | 20020103 | WO 2001-US19734 |
| | WO 2002000902 | | A3 | 20021003 | 20010621 |
| | | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | |
| | | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | |

=> d ab

L8 ANSWER 1 OF 35 CAPLUS COPYRIGHT 2003 ACS
AB A method for detg. gene expression in **transgenic** plants is disclosed. CDNA sequence of two genes, PAP1 and PAP2, cloned from *Arabidopsis* by activation tagging method were disclosed. The PAP1 and PAP2 and belong to R2, R3 MYB family and the genes were mapped to *Arabidopsis* chromosome 1 81 cm and 84 cm, resp. This method includes providing expression vectors having the PAP1 or PAP2 gene linked to an expressed gene of interest. If the expression vector is activated, the PAP1 or PAP2 genes confer a purple pigmentation to the **transgenic** plant. Thus, plants that have been successfully transformed are easily identifiable by visual inspection.

=> d 2 so

L8 ANSWER 2 OF 35 CAPLUS COPYRIGHT 2003 ACS
SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

=> d 2 pi

| L8 | ANSWER 2 OF 35 | CAPLUS | COPYRIGHT 2003 ACS | | |
|----|----------------|--------|--------------------|-----------------|----------|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
| PI | JP 2002112789 | A2 | 20020416 | JP 2000-309581 | 20001010 |

=> d 3 pi

L8 ANSWER 3 OF 35 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

=> d 3 so

L8 ANSWER 3 OF 35 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
SO Plant Molecular Biology, (October, 2002) Vol. 50, No. 3, pp. 485-495.
<http://www.kluweronline.com/issn/0167-4412>. print.
ISSN: 0167-4412.

=> d 7 so

L8 ANSWER 7 OF 35 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 2
SO Journal of the Korean Society for Horticultural Science (2001), 42(5),
487-491
CODEN: JKSHAA

=> d 8 so

L8 ANSWER 8 OF 35 AGRICOLA Compiled and distributed by the National
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(2003)
SO Plant cell reports, July 2001. Vol. 20, No. 5. p. 456-462
Publisher: Berlin : Springer-Verlag.
CODEN: PCRPD8; ISSN: 0721-7714

=> d 8 ab

L8 ANSWER 8 OF 35 AGRICOLA Compiled and distributed by the National
Agricultural Library of the Department of Agriculture of the United States
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(2003)

AB Flavonoid-3',5'-hydroxylase (F3'5'H) is the key enzyme in the synthesis of
3',5'-hydroxylated anthocyanins, which are generally required for the
expression of blue or purple flower color. It has been predicted
that the introduction of this enzyme into a plant species that lacks it
would enable the production of blue or purple flowers by altering the
anthocyanin composition. We present here the results of the
genetic engineering of petunia flower color, pigmentation
patterns and **anthocyanin** composition with sense or antisense
constructs of the F3'5'H gene under the control of the CaMV 35S promoter.
When sense constructs were introduced into pink flower varieties that are
deficient in the enzyme, **transgenic** plants showed flower
color changes from pink to magenta along with changes in
anthocyanin composition. Some **transgenic** plants showed
novel pigmentation patterns, e.g. a star-shaped pattern. When sense
constructs were introduced into blue flower petunia varieties, the flower

color of the **transgenic** plants changed from deep blue to pale blue or even pale pink. **Pigment** composition analysis of the **transgenic** plants suggested that the F3'5'H transgene not only created or inhibited the biosynthetic pathway to 3',5'-hydroxylated anthocyanins but switched the pathway to 3',5'-hydroxylated or 3'-hydroxylated anthocyanins.

=> d 9 so

L8 ANSWER 9 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)

SO The Plant journal : for cell and molecular biology, Nov 2001. Vol. 28, No. 3. p. 319-332
Publisher: Oxford : Blackwell Sciences Ltd.
ISSN: 0960-7412

=> d 11-20 ti

L8 ANSWER 11 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI Biliverdin reductase-induced phytochrome chromophore deficiency in **transgenic** tobacco

L8 ANSWER 12 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI **Transgenic** Gentiana species (Gentian)

L8 ANSWER 13 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 3

TI Development of **transgenic** rice plants expressing maize **anthocyanin** genes and increased blast resistance.

L8 ANSWER 14 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)

TI anthocyanin1 of petunia encodes a basic helix-loop-helix protein that directly activates transcription of structural **anthocyanin** genes.

L8 ANSWER 15 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 4

TI **Anthocyanin regulatory** gene expression in **transgenic** white clover can result in an altered pattern of pigmentation.

L8 ANSWER 16 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)

TI A zinc finger protein RHL41 mediates the light acclimatization response in *Arabidopsis*.

L8 ANSWER 17 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI Molecular characterization of rose flavonoid biosynthesis genes and their application in Petunia

L8 ANSWER 18 OF 35 CAPLUS COPYRIGHT 2003 ACS

TI Cloning and expression of cDNAs for flavonoid 5-glucosyltransferase from plants and their uses for **regulating** flower color

L8 ANSWER 19 OF 35 CAPLUS COPYRIGHT 2003 ACS

TI **Anthocyanin** biosynthesis genes linked to male fertility-restoring genes in **transgenic** plants for use in the regulation of male fertility

L8 ANSWER 20 OF 35 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5

TI Expression of **anthocyanin** pigmentation in wheat tissues transformed with **anthocyanin** regulatory genes

=> d 13 so

L8 ANSWER 13 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 3

SO Molecular breeding : new strategies in plant improvement, Jan 2001. Vol. 7 No. 1. p. 73-83
Publisher: Dordrecht ; Boston : Kluwer Academic Publishers, c1995-
CODEN: MOBRFL; ISSN: 1380-3743

=> d 14 so

L8 ANSWER 14 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)

SO The Plant cell, Sept 2000. Vol. 12, No. 9. p. 1619-1631
Publisher: [Rockville, MD : American Society of Plant Physiologists, c1989-
CODEN: PLCEEW; ISSN: 1040-4651

=> d 14 ag

'AG' IS NOT A VALID FORMAT

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L8 ANSWER 14 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)

AB The petunia loci anthocyanin1 (an1), an2, an4, and an11 are required for the transcription of **anthocyanin** biosynthetic genes in floral organs. The an2 and an11 loci were recently cloned and shown to encode a MYB-domain transcriptional activator and a cytosolic WD40 protein, respectively. Here, we report the isolation of an1 by transposon tagging. an1 encodes a new member of the basic helix-loop-helix family of transcription factors that is functionally and evolutionarily distinct from JAF13, the apparent petunia ortholog of maize RED1 and snapdragon DELILA. We provide genetic evidence that the transcription factors encoded by an1, an2, and an4 operate in an unexpectedly complex **regulatory** hierarchy. In leaves, ectopic expression of AN2 induces an1 expression, whereas in anthers, an1 expression, depends on an4, encoding (or controlling) a MYB protein that is paralogous to AN2. Experiments with **transgenic** plants expressing a post-translationally controlled AN1-GLUCOCORTICOID RECEPTOR fusion protein indicated that independent of

protein synthesis, AN1 directly activates the expression of the dfrA gene encoding the enzyme dihydroflavonol 4-reductase and of Pmyb27 encoding a MYB-domain protein of unknown function.

=> d 15 so

L8 ANSWER 15 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 4
SO Australian journal of plant physiology, 2000. Vol. 27, No. 7. p. 659-667 Publisher: Collingwood, Vic. : CSIRO Publishing. CODEN: AJPPCH; ISSN: 0310-7841 Gov. Source: Federal

=> d 15 ab

L8 ANSWER 15 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 4

=> d 18 so

L8 ANSWER 18 OF 35 CAPLUS COPYRIGHT 2003 ACS
SO PCT Int. Appl., 89 pp.
CODEN: PIXXD2

=> d 18 pi

| L8 | ANSWER 18 OF 35 CAPLUS COPYRIGHT 2003 ACS | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------------|----------|----------------|-----------------|------|
| PI | WO 9905287 | A1 | 19990204 | WO 1998-JP3199 | 19980716 | |
| | W: AU, CA, CN, JP, KR, NZ, US | | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | | |
| | AU 9882432 | A1 | 19990216 | AU 1998-82432 | 19980716 | |
| | AU 754464 | B2 | 20021114 | | | |
| | EP 967283 | A1 | 19991229 | EP 1998-932550 | 19980716 | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | | |
| | NZ 335001 | A | 20010330 | NZ 1998-335001 | 19980716 | |

=> d 18 ab

L8 ANSWER 18 OF 35 CAPLUS COPYRIGHT 2003 ACS
AB The cDNA encoding flavonoid 5-glucosyltransferase capable of transferring a glycosyl group to the 5-OH of a flavonoid, e.g., **anthocyanin**, are isolated from *Perilla frutescens*, *Verbena hybrida*, *Torenia hybrida*, and *Petunia hybrida*. Cloning of 2 cDNA sequences (clones 3R4 and 3R6) from *Perilla frutescens* using the probes derived from corn flavonoid 3-glucosyltransferase, expression of the cDNA in yeasts, and detection of the enzymic activity were shown. Further claimed are the methods of recombinant prepns. of the enzyme and use of the cDNA for prepns. of **transgenic** plants and flowers. The cDNAs are useful in improving plant colors.

=> d 18 pi

L8 ANSWER 18 OF 35 CAPLUS COPYRIGHT 2003 ACS
PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 9905287 A1 19990204 WO 1998-JP3199 19980716
W: AU, CA, CN, JP, KR, NZ, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE
AU 9882432 A1 19990216 AU 1998-82432 19980716
AU 754464 B2 20021114
EP 967283 A1 19991229 EP 1998-932550 19980716
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI
NZ 335001 A 20010330 NZ 1998-335001 19980716

=> d 20 ab

L8 ANSWER 20 OF 35 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5
AB Screening of **transgenic** tissue on the basis of the
anthocyanin pigmentation has been studied in wheat.
Cell-autonomous **anthocyanin** pigmentation, controlled by B and C1
anthocyanin regulatory genes under the control of
constitutive CaMV35s promoter (pBC1-7), was obtained in scutellum of
immature embryos by biolistic procedures with or without a herbicide
resistance gene (pAct1bar). **Anthocyanin** prodn. as red/purple
pigmented cells could be visualized 24 h after bombardment. Bialaphos
herbicide resistant calli/plants generated **transgenic** sectors
which showed light-dependent **anthocyanin** pigmentation. The
pigmentation was suppressed in regenerating shoots but expressed in the
ovary and pericarp of developing seeds. **Transgenic** shoots were
obtained following selection of cultures cobombarded with a selectable
herbicide resistance gene. Southern anal. showed that transgenes were
present as multiple copy insertions in high mol. wt. DNA. The results
showed that **anthocyanin** marker could be used for tracking
transformed tissue on the basis of **anthocyanin pigment**
formation whose potential is realized by environmental factors
particularly light.

=> d 20 so

L8 ANSWER 20 OF 35 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 5
SO Current Science (1999), 76(10), 1365-1370
CODEN: CUSCAM; ISSN: 0011-3891

=> d 21-30 ti

L8 ANSWER 21 OF 35 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Developmental and environmental **regulation** of
anthocyanin pigmentation in wheat tissues transformed with
anthocyanin regulatory genes.
L8 ANSWER 22 OF 35 AGRICOLA Compiled and distributed by the National
Agricultural Library of the Department of Agriculture of the United States
of America. It contains copyrighted materials. All rights reserved.
(2003) DUPLICATE 6
TI The maize Lc **regulatory** gene up-**regulates** the
flavonoid biosynthetic pathway of Petunia.
L8 ANSWER 23 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI UVB radiation induced increase in quercetin: kaempferol ratio in wild-type

and **transgenic** lines of Petunia

L8 ANSWER 24 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 7

TI A bHLH transcription factor mediates organ, region and flower type specific signals on dihydroflavonol-4-reductase (dfr) gene expression in the inflorescence of Gerbera hybrida (Asteraceae).

L8 ANSWER 25 OF 35 CAPLUS COPYRIGHT 2003 ACS

TI Effect of Del **regulatory** gene of Antirrhinum majus on **anthocyanin** of tobacco

L8 ANSWER 26 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 8

TI Phytochrome control of **anthocyanin** biosynthesis in tomato seedlings: analysis using photomorphogenic mutants.

L8 ANSWER 27 OF 35 CAPLUS COPYRIGHT 2003 ACS

TI **Anthocyanin** biosynthesis genes linked to male fertility-restoring genes in **transgenic** plants for use in the regulation of male fertility

L8 ANSWER 28 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003) DUPLICATE 9

TI Molecular cloning and characterization of Rosa hybrida dihydroflavonol 4-reductase gene.

L8 ANSWER 29 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)

TI **Anthocyanin** biosynthetic genes and their application to flower color modification through sense suppression.

L8 ANSWER 30 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)

TI Transgene inactivation in Petunia hybrida is influenced by the properties of the foreign gene.

=> d 21 ab

L8 ANSWER 21 OF 35 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AB Cell autonomous **anthocyanin** pigmentation, produced by the **anthocyanin regulatory** genes B and C1 controlled by the constitutive CaMV35s promoter (pBC1-7), was used to optimize biolistic gene delivery into embryogenic wheat (*Triticum aestivum* L. cv 'Chris') scutellum cultures. Intensely pigmented callus cells were observed 24 h postbombardment but these cells did not continue to divide and were developmentally terminal. A population of nonexpressing cells generated **transgenic** sectors which showed light-dependent **anthocyanin** pigmentation. **Anthocyanin** pigmentation was suppressed in regenerating shoot cultures but reverted to light-dependent production in the pericarp of developing seeds. Similarly, following microtargeted gene delivery into apical meristems, **anthocyanin** production was developmentally suppressed in leaf base meristems but

prominent **anthocyanin** sectors developed in mature tissues beyond this region and persisted throughout leaf growth. In three developmental situations, callus proliferation, plant regeneration, and leaf growth, perpetuation of cells with **anthocyanin regulator** genes under the control of constitutive promoters was dependent on a higher level of **regulation** to suppress pigmentation at developmentally sensitive stages of meristematic activity. These findings provide additional evidence that the **anthocyanin regulatory** genes may be responsive to a variety of developmental and environmental stimuli.

=> d 31-35 ab

L8 ANSWER 31 OF 35 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 10
AB Delila (del), a **regulatory** gene of *Antirrhinum*, alters **anthocyanin** pigmentation when introduced into two Solanaceous species. In tomato, pigmentation in vegetative tissues is strongly increased while in tobacco, intensification of **pigment** is restricted to flowers. Although del transcripts are ubiquitous in the **transgenic** plants, transcript levels of host **anthocyanin** biosynthetic genes are only increased in pigmented regions. Constructs carrying the maize transposon Ac, inserted at the 3' end of the 35S promoter prior to the start of translation of the del gene, give variegated leaves in tomato, suggesting that del acts cell-autonomously and that it may be used as a phenotypic marker. In *Arabidopsis*, del has no strong phenotypic effects, suggesting that del may not be able to function effectively in all plant hosts.

L8 ANSWER 32 OF 35 CAPLUS COPYRIGHT 2003 ACS
AB The Mitchell line of petunia carries two **regulatory** gene mutations (an2 and an4) that result in the loss of flower **color** by shutting down the **anthocyanin** biosynthetic pathway. We have transformed the Mitchell petunia with the Lc **regulatory** gene from maize to det. whether Lc can complement these mutations. The resultant **transgenic** plants produced anthocyanins in all parts of the plant. This response was sensitive to light intensity. The pattern of expression indicates that the Lc gene has not specifically complemented the resident mutations but has up-**regulated** the **anthocyanin** pathway by some other route.

L8 ANSWER 33 OF 35 CAPLUS COPYRIGHT 2003 ACS
AB Genes encoding flavonoid pathway enzymes and in particular flavonoid glycosylating enzymes and cloned and characterized for use in the manipulation of **pigment** synthesis in plants. Specifically, the gene for UDP rhamnose: anthocyanidin-3-glucoside rhamnosyltransferase (3RT) is cloned. A 3RT cDNA was cloned from a *Petunia hybrida* petal library in pCGN1703 by differential screening for transcripts present in stage 3-4 petals of the Old Glory Blue cultivar, but absent in the R51 cultivar (mutant in the Rt gene encoding the enzyme). A preliminary clone was used to isolate a full length cDNA. The gene was placed under control of the MAC promoter and introduced into petunia by Agrobacterium-mediated transformation. **Transgenic** plants carrying sense or antisense expression constructs showed changes in petal and pollen **color**; the sense construct was able to complement Rt mutations.

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AB In this study, we demonstrate that in petunia at least four **regulatory** genes (**anthocyanin-1** [an1], an2, an4, and an11) control transcription of a subset of structural genes from the **anthocyanin** pathway by using a combination of RNA gel blot

analysis, transcription run-on assays, and transient expression assays. *an2-* and *an11-* mutants could be transiently complemented by the maize **regulatory** genes Leaf color (*Lc*) or Colorless-1 (*C1*), respectively, whereas *an1-* mutants only by *Lc* and *C1* together. In addition, the combination of *Lc* and *C1* induces **pigment** accumulation in young leaves. This indicates that *Lc* and *C1* are both necessary and sufficient to produce pigmentation in leaf cells. **Regulatory** pigmentation genes in maize and petunia control different sets of structural genes. The maize *Lc* and *C1* genes expressed in petunia differentially activate the promoters of the chalcone synthase genes *chsA* and *chsJ* in the same way that the homologous petunia genes do. This suggests that the **regulatory** proteins in both species are functionally similar and that the choice of target genes is determined by their promoter sequences. We present an evolutionary model that explains the differences in **regulation** of pigmentation pathways of maize, petunia, and snapdragon.

L8 ANSWER 35 OF 35 CAPLUS COPYRIGHT 2003 ACS
AB The *A1*-gene of *Zea mays* codes for dihydroflavanol reductase (DFR), an enzyme involved in **anthocyanin** formation. A cDNA of the *A1*-gene was inserted between the 35S-promote from CaMV and its corresponding terminator and was cloned on a plant expression vector. The plasmid was introduced by direct transfer into protoplasts of a petunia mutant, RLO1, which accumulates dihydrokaempferol (DK). While the DFR of petunia does not accept DK as a substrate, the maize DFR shows a broader substrate specificity and converts DK into leucopelargonidine, which can be further processed into pelargonidin-derivs. Therefore **transgenic** petunia plants which express the *A1*-construct show a brick red flower pigmentation representing a new variety of petunia. Among different transformants 3 types were obsd., which either showed no flower pigmentation, pigmentation only in some cells of the flower or coloration on the whole flower. These 3 types of expression, termed white, variegated and red, were analyzed. *A1*-expression was correlated with one copy integration events. Integration of multiple copies correlates in more than 90% of the analyzed plants with inactivity of the *A1*-gene and methylation of a *HpaII*-site within the 35S-promoter.

=> d 31-35 ti

L8 ANSWER 31 OF 35 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 10
TI Altered **regulation** of tomato and tobacco pigmentation genes caused by the *delila* gene of *Antirrhinum*

L8 ANSWER 32 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI **Color** modification in petunia using the *Lc* **regulatory** gene from maize

L8 ANSWER 33 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI Genes encoding glycosyltransferases involved in flavonoid metabolism and their use in modification of flower **color**

L8 ANSWER 34 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)
TI **Regulatory** genes controlling **anthocyanin** pigmentation are functionally conserved among plant species and have distinct sets of target genes.

L8 ANSWER 35 OF 35 CAPLUS COPYRIGHT 2003 ACS
TI Engineering of a new flower **color** variety of petunia

=> d 34 ab

L8 ANSWER 34 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)

AB In this study, we demonstrate that in petunia at least four **regulatory** genes (**anthocyanin-1** [an1], an2, an4, and an11) control transcription of a subset of structural genes from the **anthocyanin** pathway by using a combination of RNA gel blot analysis, transcription run-on assays, and transient expression assays. an2- and an11- mutants could be transiently complemented by the maize **regulatory** genes **Leaf color** (Lc) or **Colorless-1** (C1), respectively, whereas an1- mutants only by Lc and C1 together. In addition, the combination of Lc and C1 induces **pigment** accumulation in young leaves. This indicates that Lc and C1 are both necessary and sufficient to produce pigmentation in leaf cells. **Regulatory** pigmentation genes in maize and petunia control different sets of structural genes. The maize Lc and C1 genes expressed in petunia differentially activate the promoters of the chalcone synthase genes chsA and chsJ in the same way that the homologous petunia genes do. This suggests that the **regulatory** proteins in both species are functionally similar and that the choice of target genes is determined by their promoter sequences. We present an evolutionary model that explains the differences in **regulation** of pigmentation pathways of maize, petunia, and snapdragon.

=> d 34 so

L8 ANSWER 34 OF 35 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2003)

SO The Plant cell, Nov 1993. Vol. 5, No. 11. p. 1497-1512
Publisher: [Rockville, MD : American Society of Plant Physiologists, c1989-
CODEN: PLCEEW; ISSN: 1040-4651

=> dis his

(FILE 'HOME' ENTERED AT 14:09:55 ON 29 APR 2003)

FILE 'AGRICOLA, CAPLUS, BIOSIS' ENTERED AT 14:10:25 ON 29 APR 2003
L1 11477 S ANTHOCYANIN
L2 1426 S L1 AND REGULAT?
L3 145 S L2 AND TRANSGENIC
L4 1 S L3 AND GRASS
L5 36 S L3 AND COLOR
L6 26 DUP REM L5 (10 DUPLICATES REMOVED)
L7 52 S L3 AND (COLOR OR PIGMENT)
L8 35 DUP REM L7 (17 DUPLICATES REMOVED)

=> d 18 and stress

'AND' IS NOT A VALID FORMAT
'STRESS' IS NOT A VALID FORMAT

In a multifile environment, a format can only be used if it is valid in at least one of the files. Refer to file specific help messages or the STNGUIDE file for information on formats available in individual files.

REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):ti

L8 ANSWER 1 OF 35 CAPLUS COPYRIGHT 2003 ACS

TI cDNA sequence of Arabidopsis PAP1 and PAP2 gene and its uses of regulation of anthocyanin pigment synthesis in transgenic plants

=> s 18 and stress

L9 2 L8 AND STRESS

=> d 1-2 ti

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS

TI Transgenic plant expressing Arabidopsis thaliana CSL1 gene for anthocyanin biosynthesis

L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS

TI cDNA sequence of Arabidopsis PAP1 and PAP2 gene and its uses of regulation of anthocyanin pigment synthesis in transgenic plants

=> d 1-2 ab

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS

AB This invention provides cDNA and protein sequence of Arabidopsis thaliana CSL1 protein, a sequence homolog of Arabidopsis light signal regulation factor CIP. The over expression of CSL1 in transgenic plants resulted in the accumulation of anthocyanin, indicating that the CSL1 protein assocd. with plant pigment biosynthesis. The transgenic plant expressing CSL1 can be used for flavonoid biosynthesis.

L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS

AB A method for detg. gene expression in transgenic plants is disclosed. CDNA sequence of two genes, PAP1 and PAP2, cloned from Arabidopsis by activation tagging method were disclosed. The PAP1 and PAP2 and belong to R2, R3 MYB family and the genes were mapped to Arabidopsis chromosome 1 81 cm and 84 cm, resp. This method includes providing expression vectors having the PAP1 or PAP2 gene linked to an expressed gene of interest. If the expression vector is activated, the PAP1 or PAP2 genes confer a purple pigmentation to the transgenic plant. Thus, plants that have been successfully transformed are easily identifiable by visual inspection.

=> d 1-2 so

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS

SO Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF

L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS

SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2

=> d 2 pi

L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS
PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2002000902 A2 20020103 WO 2001-US19734 20010621
WO 2002000902 A3 20021003

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI,

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

=> s l3 and bluegrass

L10 0 L3 AND BLUEGRASS

=> s l3 and fescue

L11 0 L3 AND FESCUE

=> s grass and transgenic

L12 324 GRASS AND TRANSGENIC

=> s l12 and agrobacter?

L13 57 L12 AND AGROBACTER?

=> dup rem l13

PROCESSING COMPLETED FOR L13

L14 56 DUP REM L13 (1 DUPLICATE REMOVED)

=> d 56 ti

L14 ANSWER 56 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Inducible virus resistance in plants

=> d 56 ab

L14 ANSWER 56 OF 56 CAPLUS COPYRIGHT 2003 ACS

AB A method of protecting plants from virus infection comprises producing **transgenic** plants which contain a gene encoding a protective factor such as a virus-specific protease inhibitor, a polymerase inhibitor, an antiviral antibody, etc. The expression of the gene is induced at the beginning of the virus infection, e.g. by the infecting virus itself. A plasmid contg. cauliflower mosaic virus DNA contg. the 35S enhancer-promoter region, the leader sequence and ORF VII, several codons of ORF I, and the polyadenylation sequence, which sequence was fused to the bacterial chloramphenicol acetyltransferase (CAT) gene was constructed. This plasmid was transferred to **Agrobacterium** tumefaciens by the triparental mating method, and the transformants were used to produce **transgenic** Brassica napus plants. The CAT activity of wild-type and **transgenic** plant was detd. after infection with cauliflower mosaic virus. The **transgenic** plants had a 50-fold higher activity of CAT.

=> d 50-55 ti

L14 ANSWER 50 OF 56 CAPLUS COPYRIGHT 2003 ACS

TI Bipartite virus-based expression constructs for foreign genes in plant cell culture

L14 ANSWER 51 OF 56 CAPLUS COPYRIGHT 2003 ACS

TI An **Agrobacterium** tumefaciens for transmitting genes into monocotyledonous plants

L14 ANSWER 52 OF 56 CAPLUS COPYRIGHT 2003 ACS

TI Induction of male sterility in crop plants with heterologous genes

expressed from tissue-specific promoters

L14 ANSWER 53 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI **Transgenic** plants resistant to sulfonyl urea herbicides

L14 ANSWER 54 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Process for controlling plant pests using recombinant proteinase inhibitor genes

L14 ANSWER 55 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Chemically regulatable plant genes and their uses

=> d 45-49 ti

L14 ANSWER 45 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI **Transgenic** plant or plants with a naturally high water content overproducing at least two amino acids of the aspartate family

L14 ANSWER 46 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI **Transgenic** grasses and methods for preparing **transgenic** grasses

L14 ANSWER 47 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Antiviral **transgenic** plants, vectors, cells and methods

L14 ANSWER 48 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Viral disease-resistance of plants improved by transformation with potyvirus replicase gene

L14 ANSWER 49 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI The role of biotechnology in perennial **grass** improvement for temperate pastures.

=> d 49 ab

L14 ANSWER 49 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB Biotechnology has the potential to complement conventional plant breeding activities and facilitate the production of temperate grasses with improved productivity and persistence. It provides new techniques for generation of gene markers which may greatly enhance the capacity for cultivar discrimination and for tracking particular traits in breeding programmes. Through plant tissue culture and genetic transformation it is possible to introduce genes from a wide variety of sources into elite breeding lines. This review provides a summary of recent advances in the application of these technologies to temperate grasses. The development of genetic transformation technology has, in general, been much slower for monocots than for dicots. However, all the elements required for production of **transgenic** plants are now coming into place. Regeneration systems are now available for many of the temperate **grass** species. Transformation systems have been used to produce **transgenic** plants of tall fescue and cocksfoot, and genes have been isolated that have potential for improving plant performance and persistence. Several opportunities for application of biotechnology are discussed including control of invertebrate pests, virus resistance, improved digestibility, and elimination of toxins.

=> d 49 so

L14 ANSWER 49 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
SO New Zealand Journal of Agricultural Research, (1994) Vol. 37, No. 3, pp. 427-438.

=> d 46 ab

L14 ANSWER 46 OF 56 CAPLUS COPYRIGHT 2003 ACS
AB The present invention relates generally to **transgenic grass** and to a method of producing same. More particularly, the present invention is directed to **transgenic grass** of the group Monocotyledoneae. The **transgenic grass** of the present invention exhibits the potential to express a range of beneficial traits such as reduced allergenicity, enhanced nutritional content and increased disease resistance. The **transgenic grass** is regenerated from a callus, the cells of which are subjected to microparticle bombardment and/or **Agrobacterium**-mediated transfer of genetic material. The callus is subjected to transformation and regeneration on a solid support. Regeneration comprises culturing transformed cells in medium contg. rooting and shooting hormones and then culturing the resulting shoots on a medium in the absence of hormones.

=> d 46 pi

| L14 | ANSWER 46 OF 56 | CAPLUS | COPYRIGHT 2003 ACS | | |
|-----|---|--------|--------------------|-----------------|----------|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
| PI | WO 9622015 | A1 | 19960725 | WO 1996-AU16 | 19960115 |
| | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE | | | | |
| | CA 2210526 | AA | 19960725 | CA 1996-2210526 | 19960115 |
| | AU 9644270 | A1 | 19960807 | AU 1996-44270 | 19960115 |
| | AU 710908 | B2 | 19990930 | | |
| | EP 809432 | A1 | 19971203 | EP 1996-900470 | 19960115 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV | | | | |
| | AU 9943484 | A1 | 19991007 | AU 1999-43484 | 19990810 |

=> d 40-45 ti

L14 ANSWER 40 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Methods for node segment transformation for the preparation of **transgenic** monocotyledonous plants

L14 ANSWER 41 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Preparation of pathogen-resistant plants by expression of gene for antibacterial peptide cecropin SHIVA-1

L14 ANSWER 42 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Disease-resistant plants expressing foreign thionin genes

L14 ANSWER 43 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI **Transgenic** sugarcane plants (*Saccharum officinarum* L.) obtained using **Agrobacterium tumefaciens**: a new methodology for the genetic transformation of this **grass** species

L14 ANSWER 44 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Plant regeneration and genetic transformation in forage grasses.

L14 ANSWER 45 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI **Transgenic** plant or plants with a naturally high water content
overproducing at least two amino acids of the aspartate family

=> d 44 ab

L14 ANSWER 44 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

=> d 44 so

L14 ANSWER 44 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
SO Plant Biology (Rockville), (1999) Vol. 1999, pp. 101. print.
Meeting Info.: Annual Meeting of the American Society of Plant
Physiologists Baltimore, Maryland, USA July 24-28, 1999 American Society
of Plant Physiologists (ASPP)

=> d 35-39 tu

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L14 ANSWER 35 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI **Agrobacterium**-mediated transformation of turfgrass, and
transgenic plants produced thereby

L14 ANSWER 36 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Plant transformation methods based on **agrobacterium** using gene
p35, iap, or dad-1 to inhibit **agrobacterium**-induced necrosis

L14 ANSWER 37 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Development of an efficient maintenance and screening system for
large-insert genomic DNA libraries of hexaploid wheat in a
transformation-competent artificial chromosome (TAC) vector.

L14 ANSWER 38 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI **Agrobacterium**-mediated transformation of creeping bentgrass
using GFP as a reporter gene.

L14 ANSWER 39 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Insect-resistant **transgenic** plants and methods for improving
.delta.-endotoxin activity against target insects

=> d 35 so

L14 ANSWER 35 OF 56 CAPLUS COPYRIGHT 2003 ACS
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2

=> d 38 so

L14 ANSWER 38 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
SO Hereditas (Lund), (January, 2000(2001)) Vol. 133, No. 3, pp. 229-233.
print.
ISSN: 0018-0661.

=> d 38 ab

L14 ANSWER 38 OF 56 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB Creeping bentgrass (*Agrostis palustris* Huds.) is a cool season grass widely used on putting greens in golf courses. Transformation of creeping bentgrass has been conducted using microprojectile bombardment and protoplast electroporation. The objective of our study is to develop an alternative and more efficient approach in transforming the grass using **Agrobacterium** (strain EHA 101). This technique was effective in transforming 40-day old calli derived from mature seeds cultured on MS medium supplemented with 2,4-D, kinetin, and sucrose. Dozens of transgenic plants have been produced from two independent transformed calli. Presence of functional green fluorescence protein (GFP) was detected in leaves, stems, and roots of transgenic seedlings. Four putative transgenic plants and two control plants were randomly chosen and analyzed by Southern blot analysis. Bands corresponding to the GFP gene were clearly shown in transgenic plants. These results indicated that **Agrobacterium** transformation can successfully be applied to creeping bentgrass.

=> d 30-34 ti

L14 ANSWER 30 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Coleopteran-toxic δ -endotoxins and genes and insect-resistant transgenic plants

L14 ANSWER 31 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Plant transformation method by embryo inculcation in the seed

L14 ANSWER 32 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI *Arabidopsis thaliana* chromosome centromere sequences and their use in DNA constructs and vectors

L14 ANSWER 33 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Methods for controlling viral diseases in plants involving expression of aptamers for modulation of transcription

L14 ANSWER 34 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Improved expression of cry3b insecticidal protein in plants

=> d 31 ab

L14 ANSWER 31 OF 56 CAPLUS COPYRIGHT 2003 ACS
AB A transformation method comprising inoculation and co-cultivation of a target tissue, from a target plant, with **Agrobacterium**, at a time when the target tissue is in its natural plant environment, followed by generation of a transgenic plant via dedifferentiation and regeneration of the target tissue.

=> d 25-29 ti

L14 ANSWER 25 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Maize RS324 promoter and methods for its use in plant transformation

L14 ANSWER 26 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI The fructan exohydrolase of chicory and a cDNA encoding it and the manipulation of fructan catabolism

L14 ANSWER 27 OF 56 CAPLUS COPYRIGHT 2003 ACS

TI Method for producing **transgenic** plants resistant to glyphosate herbicides

L14 ANSWER 28 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Method for producing **transgenic** plants resistant to glyphosate herbicides

L14 ANSWER 29 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Method for producing **transgenic** plants resistant to glyphosate herbicides

=> d 20-24 ti

L14 ANSWER 20 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Method for producing disease resistant plant with thionin gene from Avena sativa

L14 ANSWER 21 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI **Agrobacterium**-mediated transformation of creeping bentgrass using GFP as a reporter gene

L14 ANSWER 22 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Maize RS81 promoter and methods for its use in plant transformation

L14 ANSWER 23 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Maize RS81 promoter and methods for its use in plant transformation

L14 ANSWER 24 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI The rice actin 2 promoter and intron and their use for plant transformation

=> d 22 ag
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L14 ANSWER 22 OF 56 CAPLUS COPYRIGHT 2003 ACS
AB The current invention provides the maize RS81 promoter. Compns. comprising this sequence are described, as are plants transformed with such compns. Further provided are methods for the expression of transgenes in plants comprising the use of these sequences. The methods of the invention include the direct creation of **transgenic** plants with the RS81 promoter by genetic transformation, as well as by plant breeding methods. RS81 promoter was isolated from a maize B73 genomic library and fused to the gus reporter gene, with and without a modified (internal deletion) rice actin 2 intron 1. The RS81 promoter is the promoter of genes expressed in maize root tissue but not in kernel tissue, and in mol. anal., was shown to have a root-specific expression profile. Transient expression assays in microparticle bombarded maize suspension cells and in excised maize root and leaf tissue were carried out to det. the functionality of the promoter. The promoter was functionally active when used in conjunction with the modified rice actin 2 intron 1. Furthermore, the RS81 promoter-intron combination achieved expression levels that are greater than the expression level of the strong actin 1 promoter-actin 1 intron combination. The sequences of the invention represent a valuable new tool for the creation of **transgenic** plants, preferably having one or more added beneficial characteristics.

=> d 21 ab

L14 ANSWER 21 OF 56 CAPLUS COPYRIGHT 2003 ACS
AB Creeping bentgrass (*Agrostis palustris* Huds.) is a cool season grass widely used on putting greens in golf courses. Transformation of creeping bentgrass has been conducted using microprojectile bombardment and protoplast electroporation. The objective of our study is to develop an alternative and more efficient approach in transforming the grass using **Agrobacterium** (strain EHA 101). This technique was effective in transforming 40-day old calli derived from mature seeds cultured on MS medium supplemented with 2,4-D, kinetin, and sucrose. Dozens of transgenic plants have been produced from two independent transformed calli. Presence of functional green fluorescence protein (GFP) was detected in leaves, stems, and roots of transgenic seedlings. Four putative transgenic plants and two control plants were randomly chosen and analyzed by Southern blot anal. Bands corresponding to the GFP gene were clearly shown in transgenic plants. These results indicated that **Agrobacterium** transformation can successfully be applied to creeping bentgrass.

=> d 21 so

L14 ANSWER 21 OF 56 CAPLUS COPYRIGHT 2003 ACS
SO *Hereditas* (Lund, Sweden) (2001), 133(3), 229-233
CODEN: HEREAY; ISSN: 0018-0661

=> d 15-19 ti

L14 ANSWER 15 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Homologous recombination and molecular evolution of recombination protein homologs in plants

L14 ANSWER 16 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Method for increasing transgenic crop yield or biomass using protoporphyrinogen oxidase (Protox) gene from *Bacillus subtilis*

L14 ANSWER 17 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI *Bacillus thuringiensis* .delta.-endotoxins, sequences, compositions, and uses thereof

L14 ANSWER 18 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Protein and cDNA sequences of a novel insecticidal endotoxin protein CRY from *Paecilomyces farinosus*

L14 ANSWER 19 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Protein and cDNA sequences of a novel insecticidal and nematicidal protein from *Xerocomus chrysenteron*

=> d 1-14 ti

L14 ANSWER 1 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Protein and cDNA sequences of a *Arabidopsis thaliana* gene ORE7 and use for controlling life span of plants

L14 ANSWER 2 OF 56 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
TI **Agrobacterium** tumefaciens-mediated transformation of *Festuca arundinacea* (Schreb.) and *Lolium multiflorum* (Lam.)

L14 ANSWER 3 OF 56 CAPLUS COPYRIGHT 2003 ACS

TI Improved efficiency of regeneration of **transgenic** plants using meristematic or nodal tissue transformed with **Agrobacterium**

L14 ANSWER 4 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Synthetic insecticidal proteins and synergistic combinations thereof for production of **transgenic** plants which are resistant to insect

L14 ANSWER 5 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Protein and DNA sequences of genes isolated from *Rhodococcus erythropolis* involved in isoprenoid compound production

L14 ANSWER 6 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Method for efficient transformation of soybean cotyledons by wounding and **Agrobacterium tumefaciens** vectors containing transgenes

L14 ANSWER 7 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Sustained totipotent culture of selected monocot genera

L14 ANSWER 8 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Fusion products of .delta.-endotoxins CryET33, CryET34, tIC100 or tIC101 of *Bacillus thuringiensis* for improved resistance to boll weevil in cotton and **transgenic** plants

L14 ANSWER 9 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Construction of stress tolerant **transgenic grass** plants with altered proline biosynthesis expressing a .DELTA.1-pyrroline-5-carboxylate synthetase gene or an antisense proline dehydrogenase gene

L14 ANSWER 10 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Insecticidal toxin tIC851 and gene of *Bacillus* and methods of protecting plants from anthonomous insects

L14 ANSWER 11 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Method for increasing calcium storage in plants by overexpression of calcium-binding proteins or peptide-encoding transgene

L14 ANSWER 12 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Homeobox binding sites and their uses in identifying potential targets for homeobox gene products in plant

L14 ANSWER 13 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI S-adenosyl-L-methionine:phosphoethanolamine N-methyltransferase compositions and methods for modulating lipid biosynthesis in **transgenic** plants

L14 ANSWER 14 OF 56 CAPLUS COPYRIGHT 2003 ACS
TI Shuffling of **Agrobacterium** and viral genes, plasmids and genomes for improved plant transformation